

NETWORK CABLE INSTALLER

A student who has completed the Job Corps Network Cable Installer program is equipped with the skills to contribute to the workplace as a valued employee from day one. Competence in academic and vocational skills is required for graduation. In addition, Job Corps students learn employability and technological skills. To complete his or her Network Cable Installer training, a student must master skills in these categories:

SAFETY

Demonstrate safe cable installation practices; comply with OSHA HAZMAT regulations.

CABLE INSTALLATION

Understand terminology related to cable installation; identify cable types and their uses; understand cable installation requirements to pass Category 5; read and understand marking on cable jackets; understand the applications for plenum and riser cable; understand national and local building code requirements for cable installation; read blueprints, schematic drawings and sketches; identify and properly use hand and power tools to install cable; properly fish cable through various types of ceilings, walls, floors, conduit, innerduct, risers and firestops; install wall cabinets and boxes; install various types of wall outlets; install surface-mounted raceways, support hardware and cable supports; label cables at termination points; prepare records.

CABLE HARDWARE, TOOLS AND EQUIPMENT

Identify connector types, network cabling hand tools and network-cabling testers and their uses.

TWISTED PAIR CABLING

Identify and describe the components and makeup of twisted pair cables; identify various types, categories and performance ratings of twisted pair cables; memorize the four-pair network cabling color scheme and tip/ring.

TWISTED PAIR CONDUCTORS

Identify the types and components of modular plugs; identify common wiring configurations; terminate Category 5 (or current industry standard) patch cables using RJ45 UTP and RJ45 ScTP modular plugs.

TWISTED PAIR CABLE TESTING

Identify terms used in twisted pair cable testing; identify multiple cable faults that may simultaneously occur in network cabling; understand features and properly use various types of community testers to test patch cables; troubleshoot and correct opens, shorts, split pairs, reversals and transposals in network cabling; perform tone and trace tests.

HORIZONTAL AND BACKBONE CABLING

Understand terms related to horizontal and backbone cabling; basic cabling standards for Category 5 cabling; memorize the 25-plus-pair and 100-pair color sequence; identify hardware components used in horizontal and backbone cabling; understand specifications for properly terminating Category 5 cable; terminate Category 5 cable on 66 and 110 cross-connect blocks, 110 patch panels and 110 style jacks.

COAXIAL CABLING

Describe the types and uses for coaxial cabling; describe the composition of coaxial cable; terminate coaxial cable to F-Types and BNC connectors; test cables terminated with F-Type and BNC connectors.

STP CABLING

Describe the types of commonly used two-pair STP cable; terminate two-pair STP cable in UDC connectors; test cables terminated with UDC connectors.

NETWORK SYSTEMS

Understand terms related to network cabling and the function of components used in a Local Area Network.

PERFORMANCE TESTING

Understand terms related to cable performance testing; understand the types of tests performed by a cable performance tester; use a performance tester; connect cabling problems identified by a performance tester; download data to a personal computer and print out performance test data.

CERTIFICATION

Pass a vendor or non-vendor certification examination.